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ABSTRACT OF THE DISCLOSURE

Ambient calculus-based modal logic model checking is disclosed. In one embodiment, a method receives a process for analysis against a formula, and outputs whether it satisfies the formula. In one embodiment, process analysis is conducted in a recursive manner. The process is normalized to determine whether the process comprises a single element. The process is partitioned to determine whether each component satisfies the formula. A plurality of names of the process is determined, and it is verified that a name exists for the formula that is unequal to any of the plurality. Each process sublocation is analyzed, as well as the spatial process reach.

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